

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. (currently amended) A method for making a semiconductor device comprising:
forming a conductive path on a substrate, the conductive path made of copper;
depositing a metal more noble than copper on the conductive path, from an
aqueous solution by immersion plating; ~~and~~
facilitating a diffusion of the metal more noble than copper into the conductive
path, the metal more noble than copper having a low solubility to substantially diffuse
into grain boundaries of the conductive path to significantly increase reliability of the
conductive path; and
planarizing the conductive path after the facilitating to remove the deposited metal
and a portion of the conductive path.
2. (previously presented) The method of claim 1, wherein the metal more noble than
copper comprises platinum.
3. (previously presented) The method of claim 1, wherein the metal more noble than
copper comprise rhodium.
4. (previously presented) The method of claim 1, wherein forming the conductive
path comprises a damascene process.
5. (previously presented) The method of claim 1, wherein the metal more noble than
copper comprises gold.
6. (cancelled)

7. (previously presented) The method of claim 1, wherein the metal more noble than copper comprises ruthenium.
8. (currently amended) The method of claim 1, wherein the metal more noble than copper comprises osmium.
9. (cancelled)
10. (previously presented) The method of claim 11, wherein the metal more noble than copper comprises iridium.
11. (cancelled)
12. (currently amended) The method of claim ~~11~~ 1, wherein depositing the metal more noble than copper ~~second material~~ comprises removing an oxide from the conductive path, and immersing the conductive path in an aqueous solution having at least the second material.
13. (cancelled)
14. (cancelled)
15. (currently amended) The method of claim 1, wherein facilitating diffusion of the second material comprises heat treating the conductive path having the deposited metal more noble than copper ~~second material~~.
16. (currently amended) The method of claim 15, wherein heat treating the conductive path comprises annealing the conductive path ~~at a predetermined temperature and time~~ to substantially diffuse the metal more noble than copper ~~second material~~ to the grain boundaries within the ~~first material~~ copper, the ~~predetermined temperature and time~~

based at least in part on the ~~first~~ copper and the metal more noble than copper ~~second~~
~~material~~.

17. (original) The method of claim 1, wherein the conductive path comprises at least
of one of a conductive line and a conductive interconnect.

18-26. (cancelled)

27. (currently amended) A method for making a semiconductor device comprising:
forming a conductive path on a substrate, the conductive path made of a first
material;

removing an oxide from the conductive path by etching the conductive path with a
medium having a mildly acidic or mildly basic solution;

depositing a second material on the conductive path after removing the oxide from
the conductive path; ~~and~~

facilitating a diffusion of the second material into the conductive path, the second
material having a ~~predetermined~~ solubility to substantially diffuse to at least one of an
interface and grain boundaries within the first material to significantly increase reliability
of the conductive path; and

planarizing the conductive path after the facilitating to remove the deposited
second material and a portion of the conductive path.

28. (cancelled)

29. (previously presented) The method of claim 27, wherein the second material
further comprises at least one of silver, gold, palladium, ruthenium, rhodium, osmium,
iridium, and platinum.